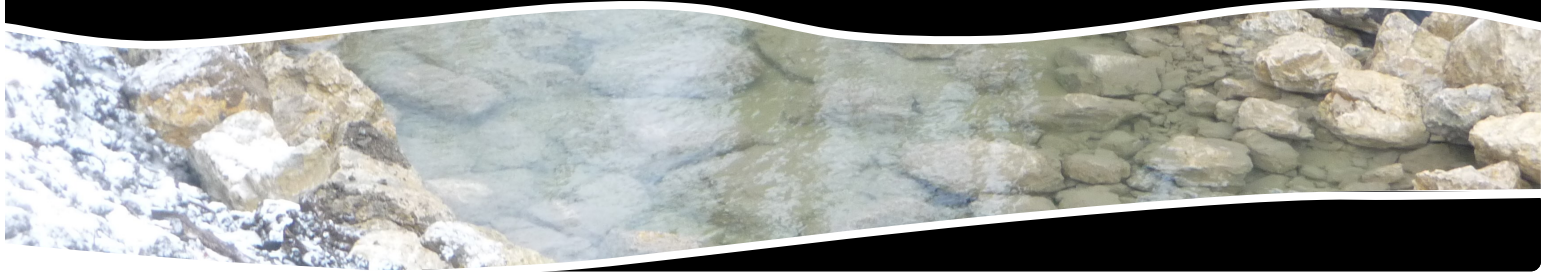


# WATER QUALITY PROJECT FACT SHEET

## QUARRY CREEK RAVINE STABILIZATION



### Why did SWMO choose this Project?

Soil from the Quarry Creek ravines kept plugging up the County Road 6 bridge. This soil accumulation threatened the bridge. It was also very costly to remove the soil and maintain the roads. Stabilizing the ravine protects the bridge, reduces road maintenance, and improves water quality in the Minnesota River.

Erosion happens when water travels fast enough to transport the soil, sand, or rocks lining water ways. Some water ways have larger cobbles or stones lining the channel, and are more resilient to erosion. The Quarry Creek ravines have fine soils that are easily transported to plug up the bridge and create more gullies. Therefore, it is important to slow the water's descent.

Thanks to ten local landowners, Scott County was able to install practices designed to reduce erosion in the ravines:

- Check dams: Structures or piles of rocks placed in steep ravine water channels to slow the water flow.
- Riprap: Large rocks that reinforce the lining or banks in water channels.
- Diversions: Structures that slow and divert water from highly erodible areas during storms.
- Turf reinforced mats: Permanent net-like matrixes that hold soils in place, but allow vegetation to grow.
- Water detention basins: Depressions designed to hold water.
- Grassed waterways: Native vegetation planted to stabilize soils on stream banks.

Detention structure designed to hold back water  
and slowly release it back in the ravine



### QUICK FACTS

**Major River Basin:** Minnesota River

**Water Bodies Affected:** Minnesota River

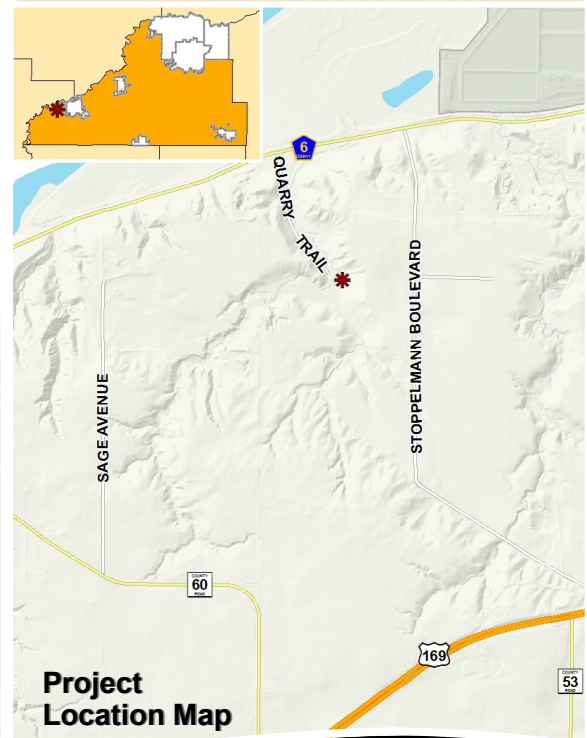
#### **Project Goals:**

1. Protect County Road 6
2. Reduce soil erosion carried to the Minnesota River
3. Improve water quality

**Construction Timeline:** Fall 2015 - Spring 2016

**Costs:** \$1.8 Million

**Project Designs and Management by:**  
Scott County WMO, Scott County Hwy Department and Barr Engineering



**Project  
Location Map**

**SCOTT WATERSHED MANAGEMENT ORGANIZATION (SWMO)**

When We Work Together to Improve Water Quality, We Improve Our Quality of Life.



# WATER QUALITY PROJECT FACT SHEET

## QUARRY CREEK RAVINE STABILIZATION

Before construction



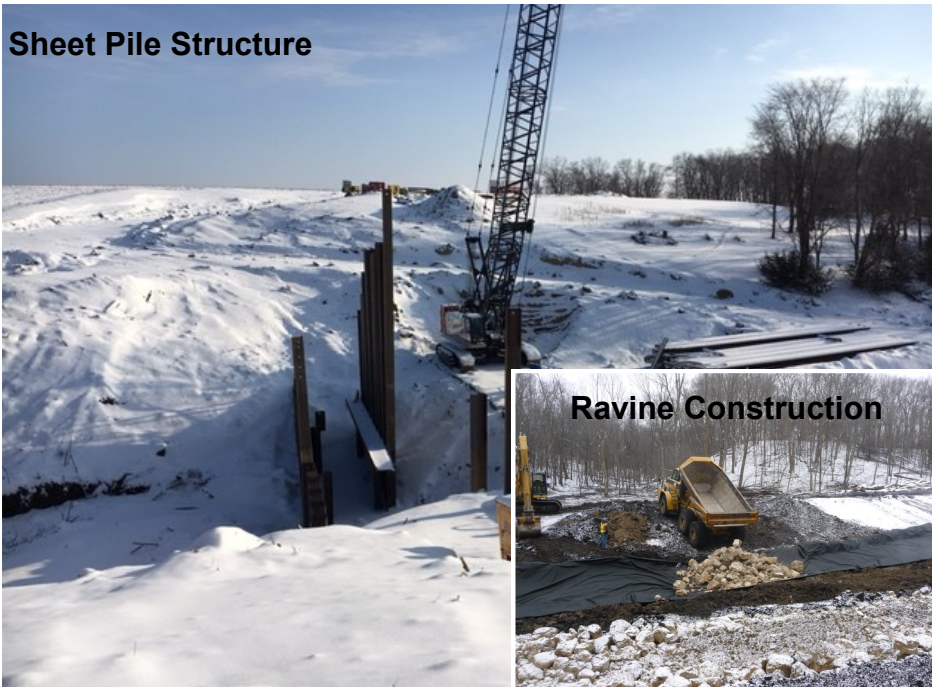
After construction



### PHOTOS

**Above:** Before and after photos of the same location in the ravine  
**Below:** Construction photos of the sheet pile structure and ravine

Sheet Pile Structure



Ravine Construction



### MAJOR OUTCOMES

- 2,600+ linear feet of riprap channel stabilization
- 750+ linear feet of turf reinforced matting channel stabilization
- 29 rock check dams
- 2.0 acres of in-ravine water detention
- 1 grade stabilization
- 2,000+ linear feet of grassed waterway
- 300 linear feet diversions

#### Funding Sources:

- Clean Water Legacy Act
- BWSR
- SWMO
- MnDOT Bonding
- MPCA Loan



**SCOTT WATERSHED MANAGEMENT ORGANIZATION (SWMO)**  
200 Fourth Avenue West Shakopee, MN 55379 • 952-496-8475 • <http://www.scottcountymn.gov>